

## SECTION A

1. Discuss the changing views on the nature of projectile motion from Aristotle to Buridan.
2. Summarise briefly the contents of Book I of De Revolutionibus Orbium Coelestium. Compare the arguments of Copernicus with any discussions of the earth's motion prior to the sixteenth century that you are familiar with.
3. Compare the views of Descartes and Bacon on scientific method. How influential were these views in promoting the scientific revolution in the seventeenth century?
4. Write a short biographical sketch of Galileo. Evaluate critically his contribution to the Copernican revolution.
5. Describe the circumstances under which Newton came to write the Principia. Give a critical appraisal of the Newtonian synthesis.

## SECTION B

6. Discuss the nature and assess the significance of William Harvey's proofs of the circulation of blood in animals.
7. Describe the work of microscopists in the seventeenth century and indicate their influence on the study of living things.
8. Write an essay on the classification of plants and animals before Linnaeus.

CHELSEA COLLEGE  
University of London

M.Sc. Examination

HISTORY AND PHILOSOPHY OF SCIENCE AND MATHEMATICS

HISTORY OF SCIENCE I

THURSDAY, 17 June, 1982 : 10.00 a.m. to 1.00 p.m.

Answer TWO questions from Section A and ONE question from  
Section B.

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CHELSEA COLLEGE  
University of London

M.Sc. Examination in History and Philosophy of  
Science and Mathematics

HISTORY OF SCIENCE

WEDNESDAY, 20 June, 1984: 10 a.m. to 1 p.m.

Answer TWO questions from Section A and ONE question  
from Section B.

SECTION A

1. Discuss critically Aristotle's treatment of change  
in the physical world.
2. Write an essay on the development of Greek astronomy.
3. Summarize the main features of the Scientific Revolution.
4. Give a critical evaluation of Newton's Opticks.
5. Which of Galileo's works, the Dialogo or the  
Discorsi, do you regard as the more significant?  
Give reasons for your views.

SECTION B.

6. Write an essay on Aristotle's contribution to the  
knowledge of living things.
7. "With these suppositions thus stated, I think it will  
be manifest that the blood goes round and is returned,  
is driven forward and flows back, from the heart to  
the extremities, and thence back again to the heart,  
and so executes a sort of circular movement". W. Harvey,  
Exercitatio anatomica de motu cordis et sanguinis in  
animalibus, 1628 (trans. by K.J. Franklin) Chap.9.  
Discuss Harvey's three suppositions and the nature of  
their confirmation.
8. Assess the role of the microscopists in the history  
of biology in the seventeenth century.

